

REMARKS

Claims 1 through 42 are pending in this application.

Claims 1-42 are rejected.

The drawings are objected to by the Examiner.

In the following, the Examiner's comments are included in bold, indented type, followed by the Applicants' remarks:

1. **Claims 1-42 are pending in the present application.**

Drawings

2. **The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "102, 106, 110, 112, 114, 16, 118" has been used to designate multiple elements in the same view note figure 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.**

Applicant has amended Figure 1 to differentiate the multiple elements. Further amendments have been made to the Specification so that it corresponds to the amended Figure 1.

3. **The drawings are objected to because figures 3, 5, 6 and 7 contain partial views Note 37 CFR 1.84. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.**

Applicant respectfully disagrees. Figure 3 is a schematic representation and Figures 5, 6, and 7 are block diagrams of methods for performing a exclusion join operation. None of the Figures are partial views as that term is used in 37 CFR 1.84.

Specification

4. **Applicant is reminded of the proper content of an abstract of the disclosure.**

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus,

process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given. (Note the abstract should not reiterate the claims.)

Applicant has attached a replacement abstract. Applicant respectfully notes that the CFR does not contain any specific prohibition of reiterating the claims in the abstract.

Claim Rejections - 35 USC § 112

6. Claims 1-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

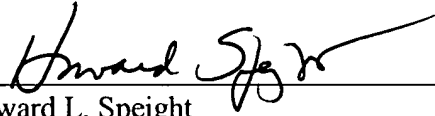
Claim 1 recites the limitation "the hash" in line 3. There is insufficient antecedent basis for this limitation in the claim. The examiner suggests changing "the" to "a" for proper antecedent basis. Independent claims 12, 23, 41 and 42 are parallel claim 1: therefore they are rejected for similar reasons [note: claim 12 line 4; claim 23 line 14; claim 41 line 3; and claim 42 line 3]. Claims 2-11, 13-22 and 24-40 are rejected based on dependency.

Applicant has amended claims 1, 12, 23, 41, and 42 to provide sufficient antecedent basis for the limitations of the claims. Applicant respectfully requests that the Examiner review the claims in light of these amendments and that the rejections of claims 1-42 be withdrawn.

SUMMARY

Applicant contends that the claims are in condition for allowance, which action is requested. Should any fees be required, Applicant requests that the fees be debited from deposit account number 50-1673.

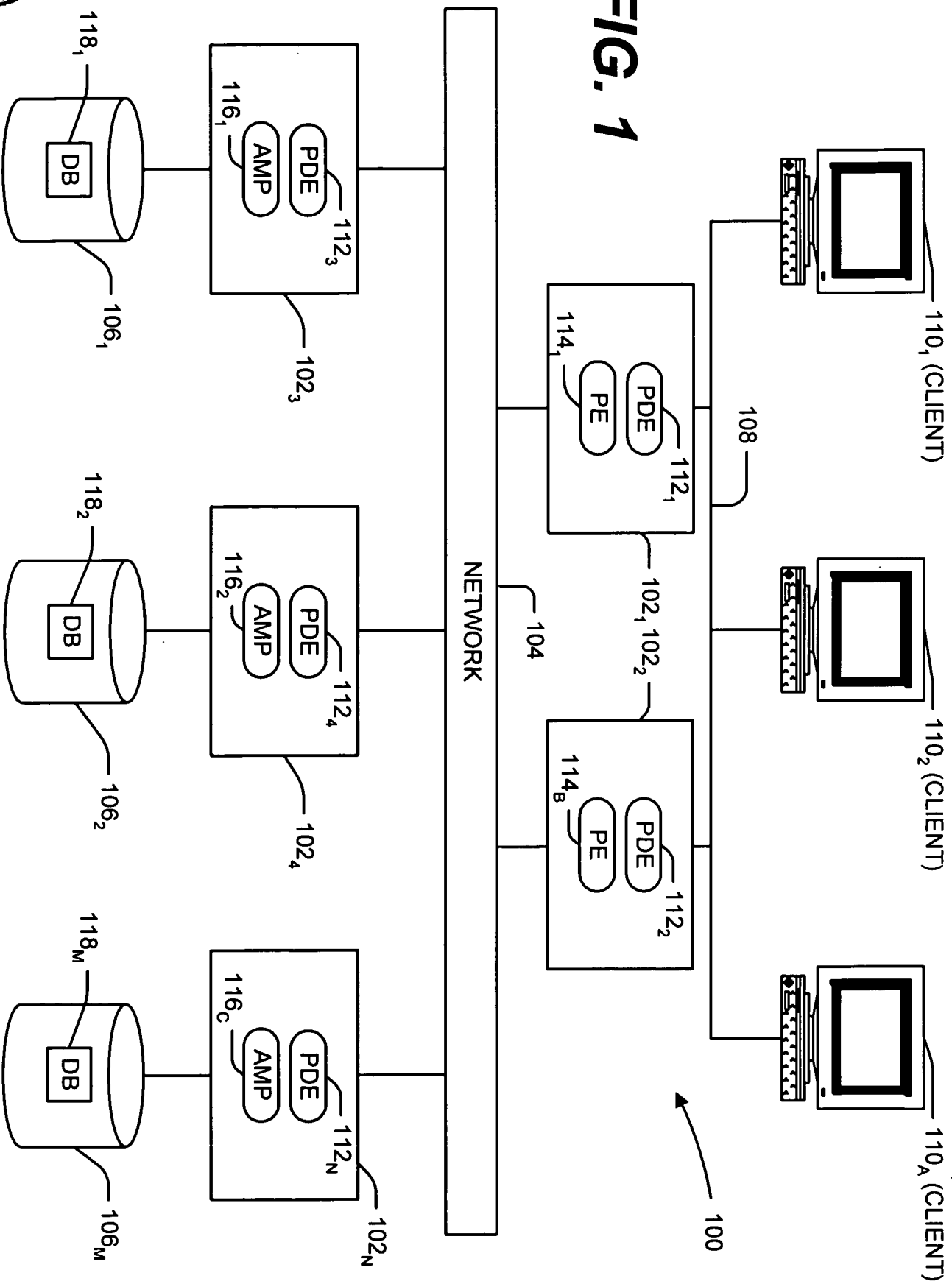
Respectfully submitted,



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FIG. 1



Abstract

A method, computer program and database system are disclosed for performing an exclusion join of at least a first table T1 and a second table T2, where each of the tables has an associated Star Map, S1 and S2, respectively. Each Star Map includes bitmap entries having locations indexed by the hash of one or more values associated with one or more join key columns of its associated table. The method, computer program, and database system include a) performing one or more Boolean operations using the bitmap entries of the Star Maps S1 and S2 to produce bitmap entries in a Star Map SJ where there is a corresponding set bitmap entry in S1 and no corresponding set bitmap entry in S2; b) using SJ to identify qualifying rows from the first table T1; and c) providing the qualifying rows as an exclusion join result.